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## AGRICULTURE IN THE SOUTH.

Progress in Agriculture—Is there any Room for Further Improvement?

By TH. POLLARD,  
Ex-Commissioner of Agriculture of Virginia.

In our last we were speaking of the progress made in agriculture by means of experiments. We, however, in a former number, in explaining the causes of the increased production of cotton since the freedom of the slaves, omitted to mention the effect of the use of fertilizers on this crop in North Carolina. They have, in fact, made this a regular cotton State, by hastening the maturity of the plant so as to cause its ripening before the period of frost, and this for all parts of the State, whereas, before the use of fertilizers, frost frequently injured it, especially in the western part of the State.

In our last we were speaking of the valuable experiments in agriculture carried on in England for more than thirty years by Gilbert and Lawes. The following results obtained as regards the wheat crop are extracted from the proceedings of the "Royal Agricultural Society of England" (14th Vol., 1882).

The area experimented on comprised thirteen acres. Wheat and barley were grown on the same plot year after year (for 24 years) without manure, and with different kinds of manure, annually.

Per Acre.

The first plot unmanured continuously, for the first 12 years, averaged.....	15½ bus.
The first plot unmanured continuously, for the second twelve years, averaged.....	12½ bus.
The first plot unmanured continuously, for the whole twenty-four years.....	14 bus.
The second plot (with mineral manures), 200 pounds sulphate potash, 100 pounds sulphate soda, 100 pounds sulphate magnesia and 350 pounds super phosphate lime, for the first twelve years, averaged.....	18½ bus.
The same for the second twelve years, averaged.....	13½ bus.
The same for the twenty-four years.....	16½ bus.
The third, ammonia salts alone for 1845, and each year since (mineral manure for 1844), that is, equal of sulphate and muriate ammonia of commerce, average first twelve years.....	22½ bus.
The same, average second twelve years.....	21½ bus.
The same, average for the twenty-four years.....	21½ bus.
The fourth, ammonia salts and minerals (the same minerals as in No. 2, and 600 pounds ammonia salts), average first twelve years.....	38 bus.
The same, average second twelve years.....	37 bus.
The same, average for the twenty-four years.....	37½ bus.
The fifth, farm-yard manure (fourteen tons every year) average first twelve years.....	35½ bus.
The same, average second twelve years.....	35 bus.
The same, average for the twenty-four years.....	35½ bus.

We have recently received from Messrs. Lawes and Gilbert a pamphlet—"On Climate and Our Wheat Crops," London, 1880—containing later experiments somewhat varied from above. We give the results in the following table:

Plot.	Manure.	Quantity per Acre.	Weight per Bushel.	Straw per Acre.
Plot 1.	Unmanured.....	Average 27 Years, 1853-78, 13½	Average 27 Years, 1853-78, 57.9	Average 27 Years, 1853-78, 11½
Plot 2.	Farm-yard Manure.....	34½	16	60.1
Plot 3.	Mineral Manure and 400 lbs. ammoniated salts.....	33½	10½	59.5
Plot 4.	Mineral Manure and 600 lbs. ammoniated salts.....	30½	50½	58.5
Plot 5.	Mineral Manure and 550 lbs. nitrate soda.....	28½	50.5	56.5
Plot 6.	Mineral Manure and 550 lbs. nitrate soda.....	28½	50.5	56.5
Plot 7.	Mineral Manure and 550 lbs. nitrate soda.....	28½	50.5	56.5
Plot 8.	Mineral Manure and 550 lbs. nitrate soda.....	28½	50.5	56.5
Plot 9.	Mineral Manure and 550 lbs. nitrate soda.....	28½	50.5	56.5

\*Average of 24 years only instead of 27, as the exact manures stated were not applied to Plot 9 during the first 3 years of the 27; 1879 was the worst wheat year in England ever recorded.

These experiments seem to prove that the continuous growth of wheat on good wheat land, containing naturally an abundance of all the mineral elements of fertility may be carried on for twenty-five years in succession without material injury to the natural fertility of the land. Mineral manures alone gave not much increase of production, while nitrogenous manures alone in the form of ammonia salts or nitrate of soda have given considerably more than mineral manures alone, and a mixture of mineral and nitrogenous has yielded more still, and more than fourteen tons of farm-yard manure. This action of mineral manures alone does not agree with the experience of some of our farmers in Virginia, for they have generally found their wheat crops much increased by dissolved bone or ground bone, or fine ground South Carolina phosphate. But here, this has been used on wheat sown on clover fallows, the clover, no doubt, supplying the ammonia. On Lawes and Gilbert's land there was no clover.

In accordance with the teachings of modern chemistry the best farmers in England apply the farm-yard manure to the land fresh from the stables, if possible, in the autumn or winter. It then has time to rot by the spring, and by degrees, the nitrogenous constituents are transferred into nitrates (nitric acid and ammonia) and be ready for the vege-

tation in the spring, when it makes a fresh start. Investigations by Sir H. S. Thompson and Prof. Way, of England, have shown that soils have a decided absorbent power, and decompose and retain for the sustenance of plants the ammoniacal and other salts which form the most valuable constituents of manure; and it has shown that not much is lost by evaporation; some is lost by drainage; it is believed not more generally of nitrogen than is gained by what the rains bring down, which, by experiments made at Rothamstead, is annually 7.21 pounds of combined nitrogen. Prof. Way's investigations have shown that manuring matters in contact with soils undergo remarkable changes, and that plants do not take up mineral food in the simple state of solution in which we add it to the soil in the shape of manure, but in entirely different states of combination. The property of absorbing, retaining and modifying the composition of manures he has shown belongs to every soil, and that some soils possess this power in a much higher degree than others, and that it is therefore reasonable to connect the agricultural capabilities of soils with their power of retaining certain fertilizing matters, and of modifying them in a very interesting manner.

The usual practice among English farmers is to apply guano or Sulphate Ammonia and other Salts of Ammonia as top dressings for wheat in autumn or during winter, while Nitrate of Soda is almost always applied in the spring, as it has been learned that this latter is not retained by soils, but readily passes into the subsoil and into the drainage, and will be to a great extent lost if not applied in the spring.

Lawes and Gilbert made many experiments on the "Improvement of Permanent Pastures," extending over a period of twenty years. They took twenty plots from one-quarter to one-half acre each, two of which were left continuously without manure. On some plots were applied exclusively Salts of Ammonia or Nitrate Soda; on others, purely mineral manures, and on others a mixture of mineral and ammoniacal fertilizers in different proportions. On plots manured with large quantities of ammonia the finer grasses as well as the clovers and other leguminous plants in a few years disappeared almost entirely, while on those where potash and superphosphates were applied clovers and other leguminous made their appearance in increased numbers and vigor. The mean produce of hay per acre per annum has ranged on the different plots from twenty-three hundred pounds without manure to about sixty-four hundred pound on the plot most heavily manured.

These interesting results prove and illustrate the power which the farmer has in his hands to modify by means of properly selected fertilizers the herbage he wishes to grow, and to increase the produce. But the application of artificial fertilizers to permanent pastures often disappoints as regards the cost. As a rule, no artificial manures thus used give as favorable results as good farm-yard manure. In many instances the

most profitable way to improve permanent pastures is to feed off the grass giving with it bran or meal or decorticated cotton cake and return all the manure to the grass.

Chemistry is doing good service to stock-raisers by determining the composition of nearly all descriptions of feeding material, and by showing its most economical use. The cotton cake just referred to is a very valuable and healthy article of feed, properly used. Large quantities are imported into England and New Orleans, and we cannot see why our farmers cannot afford to use it. It yields about forty per cent. of nitrogenous matters, and possesses high manuring qualities, making the richest kind of manure. It is too rich in nitrogenous matters, (flesh forming) to feed by itself, and should be broken up fine and fed with twice its weight of corn meal or bran. For sheep on poor pastures from one-half to three-quarters pound of this cake is of great value in keeping them in good condition and in improving the pasture. Whole seed cotton cake has been found very useful to store sheep or cattle on grass at a time of year when they are apt to be affected with "scour," or where much succulent food produces too loose state of the bowels. The astringent principle contained in the husk of the cotton seed is said to act in these cases as a never-failing corrective. Linseed cake, if pure, has been found of great value in fattening sheep and oxen rapidly.

Locust beans are imported into England from the East, ground into meal and fed to a considerable extent to horses, oxen and sheep, generally mixed with other less palatable food. It contains fifty to fifty-four per cent. of sugar, and stock are said to be very fond of it. Why sugar has not been made of it we cannot tell. We procured some seed of it last spring and planted them in a box, where they have vegetated. The botanical name is "Ceratonia Silica" (Carob tree, St. John's bread, Locust tree)—called St. John's bread under the idea that it was the Locust on which St. John fed in the wilderness, though this is not (the theologians say) correct. It is raised in Arabia and Egypt and around the shores of the Mediterranean quite extensively. It does not, like the American locust, belong to the Acacia family.

Messrs. Lawes and Gilbert have obtained important results by numerous feeding experiments carried on at Rothamstead for thirty years or more with some intervals, and have much increased our knowledge of the rationale of feeding stock. They have shown the proportions of the constituents of food which are in general most favorable for fattening; the amount of food consumed in relation to a given live weight; the amount of food consumed to yield a given amount of increase, etc. They have also made numerous analyses of the excrements of oxen, sheep and pigs fed on foods of known composition, and from all the results of these important inquiries, it has been estimated that in the valuation of animal manure, founded on a knowledge of the composition of the food, ninety per cent. of the nitrogen of food may be reckoned to be recovered in the manure in



the case of cakes, pulse and other highly nitrogenous foods; eighty-five per cent. in foods comparatively poor in nitrogen, such as the cereals, grains and roots; and less than sixty-five per cent. in the case of bulky feeding stuffs, such as hay and straw. They have demonstrated that the amount of increase in live weight and in fat is as our fattening foods go, much more dependent upon the amount of non-nitrogenous than upon that of the nitrogenous constituents, which the food supplies; but as a source of manure their value is greater the higher their proportion of nitrogenous compounds. In the case of milking cows and growing young stock, the manure is not so valuable as that of fattening stock. Carefully conducted experiments have proved that little if any nitrogen is lost by exhalation, and none of the mineral constituents. The food consumed was carefully analyzed, the gain in the living weight noted, and the loss of the food by respiration noted, and the amount and quality of the manure produced by the consumption of various foods were determined by laborious weighings. Mr. Lawes, as the result of his experiments, and putting ammonia at eight pence per pound, potash at two pence, and phosphate of lime (not phosphoric acid) at one pence per pound, constructed a table in which the estimated money value of manure from one ton of most ordinary articles of food is given. We only quote a few of them, each supposed to be good quality of its kind:

Description of food.	Money value of the manure from one ton of each food.		
	£.	s.	d.
Cotton seed, decorticated....	6	10	0
Linseed cake.....	4	18	6
Cotton-seed cake, undecorticated.....	3	18	6
Beans.....	3	14	0
Linseed.....	3	18	0
Peas.....	3	2	6
Indian meal.....	1	11	0
Locust beans.....	1	2	6
Brans.....	1	18	0
Oats.....	1	15	0
Wheat.....	1	13	0
Clover hay.....	2	5	6
Pea straw.....	0	18	9
Wheat straw.....	0	12	6
Potatoes.....	0	7	0
Mangold wurzel.....	0	5	3
Common turnips.....	0	4	0
Carrots.....	0	4	0

By reducing all to pence, and multiplying by two to convert into cents, we get the dollars and cents. This valuation is based on the supposition that there is no loss of fertilizing properties of the manures by leaching and evaporation. In Germany, Dr. Wolff, director of the "Hohenheim Experimental Station," has been studying the feeding value of different foods for twenty-five years. As the result of thousands of experiments performed in his own and other experiment stations, he has prepared tables showing the composition and value of about two hundred kinds of food. He is thus able to tell us the absolute and relative amounts of flesh-forming and fat-forming material, on an average, of the different foods, how much is digestible and how much indigestible. As an illustration, we quote from one of his tables:—Putting the feeding value of 30 pounds of rye grain at \$1, the same number of pounds of oats would be 84 cents; wheat, \$1.07; Indian corn, 94 cents; peas, \$1.38; shipstuf, 88 cents; wheat bran, 87 cents; cotton-seed cake (decorticated), \$1.68; meadow hay (average), 59 cents; red clover (average), 65 cents; fodder corn (dry), 94 cents; wheat straw, 39 cents; etc. Every German farmer has a "Farmer's Pocket Diary" prepared by experimental station, showing the comparative feeding value of 200 kinds of food, best way of mixing and feeding them, composition of fertilizers, and which kinds particular crops require, the relative value of different agricultural implements, prices, etc., and many other things important to know.

The U. S. Agricultural Department, the various State Departments and experimental stations have done much to promote the progress of agriculture of late years, though not as much as should have been accomplished, and particularly by the U. S. Department,

and this for various reasons, prominent among which has been the want of sufficient appropriations by our Congress, caused by want of appreciation of the great interest of agriculture, due to the predominance in the minds of Legislators of partisan politics as their great interest and *par sequence* the great interest of the country. We shall discuss this subject in our next.

### Bermuda Grass.

Messrs. Editors American Farmer:

Having heard so much of late years about this remarkable and valuable grass (so called), I had quite a curiosity to see it when on a recent visit to some of the Southern States. I saw it in all its glory and delightful freedom in Mississippi, and was more disappointed than pleased to find it an old acquaintance of several years' standing upon my own place here in Maryland. I saw there whole counties overrun with Bermuda grass which had taken entire possession of the land where it had obtained a foothold, and many plantations were being given over for sheep and cattle ranges. The spread of this grass may prove a boon to some of the Southern States, as stock raising is found to be more remunerative than cotton growing. It seemed to me that kind nature, to stop the ruinous system of over-cropping the land and the following of a style of farming which tended toward the permanent exhaustion of the fertility of the soil, had sent this grass as a bar to further violation of her laws. I was told by planters there that clean culture for several years would annihilate Bermuda grass, but saw no illustration of this theory among the good, easy-going planters of that section, and I am convinced from my own experience that it is no easy matter to eradicate it. It spreads by means of its long, tough and sharp spike-like roots which fill the ground for a foot or more below the surface, forming a mass of roots hard to turn with a strong team and best steel plow. It makes no apparent difference with Bermuda grass what kind of soil it happens to get into; its growth is the same whether on blowing sand or brick clay. It is still more tenacious of life than "witch grass," about which an old saying exists among farmers, that the only way to kill it is to "dig it out clean, root and branch, hang it on the fence several weeks to dry, then smoke it in your pipe and be very careful where you throw the ashes."

How this grass came upon my place is a mystery. I have never seen any growing nearer than Norfolk, but know of several truckers near me who have it in spots about their farms and equally puzzled how it came there. No doubt the seed or joints of the roots came in the manure hauled from Baltimore along with several dozen other species of weeds and grass now quite common here, but which were unknown to our forefathers. I may be taken to task for saying that Bermuda grass comes from the seed; as nine out of ten writers assert that it does not seed, that it is propagated from the joints of the roots; therefore, I would have agreed with the majority, but this season, for the first time in five years, it has blossomed and that profusely, with promise of a fair crop of seed, which I hope will never mature. If it does, I may be under the necessity of turning my truck patches into a grazing farm which I am loth to do. It had obtained a foothold and been carried about on the cultivator teeth before I knew its name or character, and I will say here, that wherever a piece of root is left Bermuda grass will spread in a fast widening circle. It is a most excellent pasture grass; cattle and horses relish it above any other. It grows with me to a height of eight or ten inches, and continues green and succulent during the severest droughts. If any one wishes to stop washing hillsides or set a piece of poor land in grass, upon which all other grasses fail, I

think he will find Bermuda grass the one to fill the bill. I frequently see in the Southern agricultural papers advertisements offering the roots of this grass for sale at so much per bundle. I propose to enter into competition with them. In fact, I am perfectly willing to cut the acquaintance of my Bermuda grass which now covers an acre or more, and will ship any one a tightly-packed barrel of roots for \$1 to cover cost of digging. Now if any one wishes a good pasture grass or a remedy for washing hillsides and is willing to let posterity look out for itself, here is a chance to get hold of this (not to me) valuable grass.

R. S. COLE.

Harmans, A. A. Co., Md.

**DISEASE IN TOMATOES.**—I am quite surprised that an old and experienced tomato-grower, like Mr. Massey, should not recognize the disease in his tomato vines as the "rot." He describes it exactly, and if he will discover the cause he will find himself suddenly famous. The disease has been among the tomatoes of this section for over a dozen years. It disappears almost entirely some seasons and suddenly breaks out with renewed force and dashes to the ground the ground the high expectations of the tomato-growers. Let us have more light on the subject.

R. S. C.

### Agriculture in France.

[From our Correspondent in Paris.]

**LUCERNE SEED** has in the southwest of France been largely adulterated with a variety known as "Chilli lucerne," and which comes from the neighborhood of Buenos Ayres. It is annual, while the others are perennial, hence great deception and loss can ensue. The Chilli variety sells for 5f. per cwt.; some farmers now employ it directly as a manure, others sow it very thickly, and in due time plow it in as a green fertilizer.

**PRESERVING EGGS.**—M. de Rolliere's plan of preserving eggs fresh, is worth knowing, since it is practised by merchants who deal so with 13 millions of eggs annually. The eggs when laid, or quite fresh, are gently struck against each other to see if they be "sound," next they are placed in a kind of earthen pitcher, having a very narrow bottom; when the vessel is full, a solution of quarter of an ounce of quick lime to one quart of water is poured in. The lime-water permeates the shell till it reaches the first membrane, rendering the latter impervious. The pitchers are then placed in a cellar, from where all light is excluded, but a uniform temperature of 44 to 46 degrees Fh. uniformly maintained. In the course of a few days a pellicle forms in the surface of the water in each pitcher, carbonate of lime, and that must never be broken till the moment for withdrawing the eggs. This process enables eggs to be kept fresh for 6 or 8 months, and not more than 5 in a thousand prove objectionable.

A gardener keeps his frames and hothouses free from slugs by mixing sulphate of copper with wheaten bran. The odor of the latter attracts the enemy to certain death. Keep poultry, however, from the stuff.

**FLAX CULTURE**, limited to the North of France, is on the decline. A century ago there was three times more grown than now. About 150,000 acres are at present under that crop; in 1863 the area was exactly double. People prefer cheap cotton goods and stuffs to linen, and Riga flax can be had 50 per cent. cheaper than French. The extended culture of beet has also diminished flax growing.

**THE VINEYARDS** are in excellent condition; unhappily the phylloxera continues its onward march. Of all the remedies propounded, autumnal inundations, followed by good spring manurings is the most popular. All attempts to acclimatize the tuberous, annual Soudan grape in France, have now been abandoned.

### Japan Clover.

A Texas correspondent of *Home and Farm* gives the following account of this plant:

This is certainly a very remarkable as well as valuable forage plant. It appears, from the history of this plant, that about thirty years ago it made its appearance on the Atlantic coast from Japan, and for the last fifteen years it has been spreading rapidly over the Southern States south of the Mississippi river. This plant is remarkable for one thing—it works its own passage everywhere. Wherever it puts its foot down, it stays, and spreads rapidly in all directions. It bears a great many seed, about the size of millet, a little flattened and pointed and fine, with one seed in a pod. The seed has a pleasant, sweet pea-taste, and ripens here in October and November. The tops turn red and wither after the seed matures, and is easily killed by frost.

It is valuable as a forage plant because it affords such abundant crops of herbage and is so nutritious. The more it is grazed, the better it is. This is a low perennial plant, not rising much above the ground, but spreading widely on the surface. When thickly set on the ground, it grows up to ten or twelve inches in height. A single bunch will spread out on the ground sometimes two to three feet in diameter. It will grow anywhere, and will root out any ordinary grass. It will choke out the Bermuda, and is superior to that grass. It is easily destroyed, and very easy to propagate.

I had been very favorably impressed with the Japan clover, from all accounts seen of it, and was influenced to write to several parties for the seed. I was told that no one had ever been known to gather the seed; that one would get more dirt than seed, etc. I was greatly disappointed.

Summer before last I noticed a plant growing in my grass lot, and thought it had a strange appearance, but thought no more of it. This last summer I noticed the same plant again. It had increased so surprisingly that I could find it all over my lot, about twenty acres, and out in the lanes leading off. The question was, what was it? In looking over Prof. Phares' book of grasses, I was surprised to find that I was surrounded by Japan clover (*Lespedeza Striata*). I then sent a sample to Mr. Beattie, Starkville, Miss., and asked him what it was. He sent me a sample of his Japan clover. So I was delighted to find his to be the same as mine, and said that I had found a bonanza. So I have.

I have no idea how it ever started on my place. I have seen it nowhere else in North Texas, and have heard of it nowhere else in Texas. No doubt but all started from one seed. It is now scattered over an area of several hundred acres.

The seed may be gathered readily when ripe, in November. After that, before spring, the seed may be procured by scraping up the dirt on top of the ground where the plant grows.

Every man who has a farm should procure the seed and stock his lanes and corners, and have a lot set in it.

Horses and cattle are particularly fond of it.

### Deer Creek Farmers' Club.

The July meeting of the Deer Creek Farmers' Club was held at the farm of W. D. Lee, near Thomas' Run, Saturday, July 21st, Mr. S. B. Silver in the chair, Bennett H. Barnes, Secretary.

Messrs. Lochary, Munnikhuyzen and Judge Watters, the committee to inspect the farm and premises, reported that the place and stock looked remarkably well; that Mr. Lee had only been living on the place a year, but had made a great improvement in its appearance in that time.



The subject selected for discussion was, "Is it advisable for a farmer to connect any other business with farming?" and from the report in the *Elys* we take the views thereon of the members:

Wm. D. Lee thought a farmer had better attend strictly to his farm, which needs his attention most of the time. If a farmer has other business besides his farm he is apt to neglect the latter. It depends, however, on a man's ability and whether he has good hands on his farm or not. In some cases he might entrust his business to hands, but if he has to pay big wages he had better let the farming alone and attend to the other business.

James Lee said a great deal would depend on the kind of business undertaken in connection with farming. If a man has a profession he cannot successfully carry on that and farming together, because the profession ought to take up all his time. A man might succeed in mercantile business and farming. A large farm, where grazing, feeding cattle in winter and raising grain are followed, will take up all a man's time. There are fewer failures among farmers than among any other class, and a good general rule therefore seems to be, stick to farming and let outside business alone.

Judge Watters said a farmer generally has room for all the energy and talent there is in him. If he has an overplus of these he had better give up farming and go at something else. A farmer who attends exclusively to his business succeeds best, and if a man intends to be a farmer he better stick to the business.

John Moores.—A poor farmer on a poor farm has enough to do, and any farmer can find something to occupy him every day in the year. Some men have more capacity than others, and while some can't farm 5 acres, others are capable of farming 10,000 acres. Some of the most prosperous farmers he had ever known were raised in other pursuits. The number of men who can attend to farming and other pursuits at the same time is small.

Thomas Lochary said he did not think a farmer could get all out of a place there is in it, or make all the money that might be made out of it without giving the farm his entire attention.

John H. Janney did not think Mr. Lochary had left anything to say. A merchant can attend to two different branches of his business better than a farmer can attend to farming and merchandising. Farming requires all a man's attention, and the old adage holds good in his case, "The shoe-maker should stick to his last." He had seen more farms sunk by a farmer trying to attend to other business than any other way. There is no question about there being money in farming if it is properly attended to. If a farmer finds he has not enough work to occupy him let him buy more land.

Wm. Webster said that those who give their undivided attention to any occupation succeed best, and this is just as necessary for a farmer as for a doctor, a lawyer, or a merchant. If a man finds his farm don't pay let him drop it and go at something else.

In reply to a question by Judge Watters, whether or not it would pay a farmer to repair his own machinery, Mr. Webster said if a man had 2,000 acres it might pay to have a workshop and employ mechanics, but on ordinary farms it does not pay to have more tools than a saw, a hatchet and an axe.

Edward P. Moores did not think it profitable for a farmer to have any other business. If, however, a man had means and could employ somebody to do his farming, he might sell fertilizers, machinery, run for County Commissioner, or have a broker's office in one corner of his house. He finds he has all he can attend to on his farm.

George E. Silver said the temptation is something great to try something else in con-

nection with farming, but he believed it would pay better to stick to one thing and carry it to perfection. In all professions it is now the rule to make specialties of certain branches, and by carrying these to perfection men become successful. Farmers ought to make their business a specialty. They ought to study their business thoroughly and know what everything costs, so as to ascertain whether it pays to do this or that. Who can tell the cost of raising a bushel of wheat?

Wm. H. Bayless said that as a general thing it is best for a man to study one pursuit, follow it closely and give it all his attention. A farmer who follows his business closely will get a thorough knowledge of it and will not have time to devote to any other calling. But the whole matter is one of adaptability, training and capacity. He did not think it possible for a man to be as successful in two callings as if he gave his undivided attention to one. Farming is capable of being developed to an indefinite extent, and the success will be proportionate to the amount of study and attention given to it.

R. Harris Archer thought the difficulty in carrying out the idea that a farmer must, under no circumstances, combine any other business with farming, arises from the fact that not one young farmer in a thousand gets unencumbered possession of a farm, and he finds it almost impossible to pay off a mortgage by his labor on the farm. If a man has a nice farm, clear of debt, let him stick to and develop it. When a man is in debt for his farm, and after pegging away, finds he can't pay for it, there is a strong temptation to try outside means. He mentioned a number of farmers who had made money by outside means and improved their farms.

Wm. Munnikhuyzen believed there were cases in which a man could carry on a farm and other business at the same time with profit. It depends greatly on the kind of business and its location with reference to the farm. As a general thing, however, it is as much as any man can do to run a farm, and he would not advise all farmers to engage in any other business with it. A man with 200 or 300 acres must be a man of extraordinary talent if he can carry on his farm and an outside business profitably; but with 50 or 60 acres he might do it.

S. B. Silver, the President, said that if a man made a business of farming and attended to the rotation of his crops, it would be as much as he could do. Every day brings with it something requiring a man's personal attention. We do not raise as large crops or with as little expense as we should. This may be brought about by close study, personal application and attending to work as the season advances. It requires a great deal of foresight to carry on a farm successfully.

Harry Wilson did not think it advisable for a farmer to have too many irons in the fire. Some men may have the ability mentally, physically and pecuniarily to carry on some other business with farming, but with the average farmer, what he makes outside he more than loses by want of attention to his farm.

Judge Watters said the question is: "Is farming a profession that requires all a man's time?" There is only one answer to that. There is enough in any pursuit to occupy a man's whole time if he chooses to give it. A farmer might make more money at something else than he makes on the farm, but he makes it at the expense of the farm.

Adjourned to meet at Thomas A. Hays', August 18th.

**CROPS IN HARFORD.**—The yield of wheat in Harford county this year is unprecedented. Judge Watters, on his farm at Thomas's Run, it is thought will have 50 bushels to the acre. Mr. Harry Wilson, near Belair, has thrashed his crop, and had by measurement from the thrashing 520 bushels of Fultz wheat on 13 acres, or 40 bushels to the acre.

### A Suggestion About Drainage.

A Missouri man, says the *Michigan Farmer*, relates an experience which offers suggestions which, while they may not be exactly new, may have for many farmers practical value. There were upon his farm several depressions which in wet seasons held ponds of water. To drain these by ordinary means would have been very expensive, because no gravel could be got near the farm, and there was no tile factory in that vicinity. Open ditches were out of the question. The services of an expert well-borer were secured. He sank several test shafts in various parts of the farm, and found that the underlying ground was a tenacious blue clay, fourteen to sixteen feet thick, and almost perfectly impervious. Beneath this was found a strata of white sand. The well-borer and his machine were placed in a wagon which, by means of a long rope, was hauled to the deepest part of the pond, about an acre in extent. Here he bored a well down to the sand, completing the operation before sunset of the day when the work was begun. In thirty-six hours the water had disappeared and the pond was dry. To make this short perpendicular drain permanent he had it cleared of sediment, sunk the shaft about two feet into the bed of sand, and filled it to the top with clean, coarse gravel from a creek bed. The gravel was heaped about a foot high above the shaft to strain the water properly that the shaft might not become choked.

There are thousands of places, where year after year, farmers have plowed around such wet spots, giving them up to the possession of rushes and frogs. Yet they could be drained easily in a few hours. In Western Michigan a large swamp lay for years on the southern edge of a village, a noisome barrier to progress and a bone of contention in village and township politics. To drain it a large ditch a mile or two long would have been required; but some one fortunately discovered that a thin sheet of clay was all that kept the waters from going down into a deep strata of gravel, boulders, and sand. The wells were sunk and the swamps thoroughly drained at an almost nominal cost, leaving rich black soil, which is the most productive and valuable in all that district. There may be thousands of similar swamps, where two or three days spent in sinking test shafts would show a ready means of converting eloughs or swamps into fields of wonderful fertility.

### The Agricultural Press.

A distinguished M. C., of South Carolina, in his daily journal, bears testimony to the agricultural press in the following terms:—"Agricultural papers that have been intelligently handled have done more in the past five years to emancipate the farmer and educate him than all the party papers combined. There can be no question about this. The true policy for farmers, and rural people generally, as it seems to us, is to encourage and support such papers published in their interest as have the brains and nerve to lead them onward and upward. A paper that has sufficient support to keep it above temptation is a power in the land. It is constantly sowing good seed; and that seed silently and surely takes root and grows. Its information is accepted as correct, its opinions as honest; its statement of facts are reliable. It has no party to support, and no party to support it. It looks to the people for its bread. It works for them, and cares not a whit about their party politics. The people need correct information; and when it comes through trustworthy hands they believe it and it makes them wiser and stronger. Stand by the papers that stand by you, and give them such support as will make them feel you are behind them."

### Live Stock.

#### Opportunities Afforded at Fairs.

Men who are young in the business of cattle breeding, and many of those not young as breeders, but who have been a little slack in their methods, and have not kept pace with advancing tastes, can utilize the fairs very greatly to their advantage, if they will. This cannot be done by a casual call, nor by a hurried run through the grounds, but only by a careful study of animals that have successfully passed under the hands of entirely competent committee men. To the man who is making the endeavor to breed any strain of cattle of the beef breeds, it is fair to presume that he knows the characteristics which alone can fit animals to pass under the eye of experienced dealers and butchers, and bring the top prices of the market. Steers that can do this must necessarily have characteristics that are, to quite a degree, like the cow of a beef breed that can win in the show-ring.

Men who have had very excellent opportunities in the feeding yard, becoming good judges of the merits of steers, are quite likely to doubt their ability to judge of the higher classes of breeding stock. They do not consider that a well-modeled, fat ewe must necessarily be quite like a well-shaped, fat wether, and that to improve their ideas upon cattle by examining the winning breeding cows at a prominent fair, they must view them from a practical standpoint. In other words, they must be guided by the same general rules that they would apply to a fat steer or a fat wether. The broad, well-rounded front, the thick, smooth shoulder, well-filled crops, full-spread loin, hips, and rump, long ribs, well sprung, flank and twist well down and full, united in one animal, whether cow, heifer, steer, or fat sheep, show the forms it is always safe for the beginner to study, and follow as a model in breeding.

If the cattle at home do not compare with those seen in the show-ring, making due allowances for certain stylish characteristics, deemed essential for show animals to possess, and for the excessive fitting also deemed necessary, then it may be safely said that the herd is not what a reasonable ambition should demand; and to go straightway and remodel it is the proper thing to do. Some men fritter away a lifetime governed by the idea that all necessary improvements have been made before their time, and it remains only for them to receive from other hands animals intended for coupling together, and that the process of planting and cultivating a crop of corn; the usual expectation being, that the crop reaped will be like the seed planted, neither better nor worse.

It is not through this kind of reasoning that animals have been bred up to the requirements of the show-ring. Recent efforts—not the manipulation by breeders at a remote period—have accomplished this. Stockmen, taking the country over, have not used their wits as industriously as have the mechanics during the past decade or two, as appears to be shown in the rapid advance in mechanical appliances. A very apt explanation of this may be found in the fact that there is no demand for inferior tools and machinery, while there is ready sale for any meat producing animal whose sinewy joints will make soup, and whose flavorless and tendinous flesh can be boiled and put into a tin can.—*National Live Stock Journal*.

A beef animal that weighs 1,000 pounds is worth twice as much as one that weighs but 500 pounds; but this rule does not work with milch cows. A cow that yields 100 pounds of butter a year is not worth one-half so much as a cow that yields 200 pounds a year, for the simple reason that while the first or 100-pound cow barely pays her keep, and, if highly fed, absolutely costs more than she makes, the latter or 200-pound cow makes a profit.



### The Jersey Cattle.

The able editor of the *Chicago Live Stock Journal* in a late number, alluding to the high prices which are being paid for Jersey cattle, says:

"There is one aspect of these wild prices that works unfavorably to the adoption of the best Jerseys in the butter dairies of the country. Of course no such fictitious prices can be paid, based upon simple butter yield, or for breeders of heifers or bulls to be used in the dairy, and, consequently, these remarkable animals must remain in the herds of the rich men and millionaires. But in another aspect it may be beneficial. It will tend strongly to the adoption of moderate priced Jerseys in butter dairies, and constant tests will be made of their butter-producing qualities, which will constantly be bringing out new cases of remarkable yields of butter, and thus strongly tend to develop the whole breed in this country. This rivalry has already produced better yields here larger than have ever been produced in Jersey. Our generous feeding has developed her much beyond her performances on her native Island, and the American Jersey is quite superior, to-day, to any of her race elsewhere. We also possess a much larger number of Jerseys than any other country; so that with the best management of our resources, we might be quite independent of new importations of this blood.

"The Jersey boom is not likely to produce any such evil consequences as the boom in Short-horns, a few years ago, because the sales are made for cash, paid by those who have it to spare, and the receding of the tide is not likely to produce any serious inconveniences. The Jersey cow is a generous gift to the dairy interest; let us develop her, and let prices take care of themselves."

### Cause and Cure of Shying.

Shying or dodging horses are made so, generally, by impaired eyesight, which gives them an imperfect view of objects, and they do not recognise ordinary things and are frightened by them; whereas if they could see well they would not shy. Poor sight may be caused by over-heating, over-drawing, and by wolf-teeth. For the first there should be cooling diet, such as grass, carrots, and bran-mashes, together with laxative medicine, glauher salts being the best, fed daily with the mashes, one-fourth pound, until the animal gives evidence, by the brightness of its coat and general appearance, that its blood has become purified and the fever is out of it. When this condition is reached the eyesight will be improved and perhaps restored. Over-loading horses is both stupid and wicked and strains the nerves of the eyes, for which the only remedy is to wash the eyes two or three times daily with a mild extract of witch hazel or some good eye-water. When this straining is severe nothing will cure it, and the horse usually becomes blind. The most common cause of poor eyesight is produced by wolf-teeth; these are small and extra teeth which grow upon the upper jaw in front of the grinders. Their presence may be often known by the horses running at the eyes, showing their inflamed condition, and when the cause is not removed the eyesight becomes impaired by a partial film or weakness. These teeth generally grow when horses are young, but not always, and when they make their appearance while they are colts they are more apt to be neglected, and so they grow up and are broken to use with impaired eyesight, and are dangerous to drive on account of their shying at objects. All horses, and especially colts, should be examined frequently for these teeth, which may be easily removed by a pair of common pinchers, or they may be knocked out with an iron put against them, as they have a very short root. A spirited horse in use at

Kirby Homestead became dangerous to drive on account of his dodging. Being a very intelligent animal, it was for a long time a problem why he was so foolish, as he would spring suddenly to one side when passing almost every dark object. The conclusion was reached at last that his eyesight must be defective, and it was supposed that he might be near sighted—born so. There was no appearance of inflammation about the eyes indicating any local disorder. This horse had wolf-teeth, which had probably grown when he was a colt. As an experiment they were taken out. This horse has improved wonderfully since they were extracted, and dodges very little compared to his former practice. It would be wise to remove all wolf-teeth as soon as they may be observed, rather than take the chances of their effect on the eye-sight.—*Cor. N. Y. Tribune.*

### Pasture Feeding of Swine.

Col. F. D. Curtis, of New York, in a recent address said:

Many farmers do not appreciate the value of a clover pasture for pigs. The hog is an omnivorous animal, and takes to clover, or even grass, in the absence of other food, as freely as a cow or a horse. I have fitted a grown hog for slaughter on sweet corn-stalks alone, fed green. Sorghum is still better, but not available for so long a feeding season. My system of wintering and summering swine, which has the commendation of being successful, is to feed apples, roots, bran and corn in winter with the house slops; and in the early spring to turn them into the orchard which is seeded with orchard grass. This grass furnishes the earliest bite of any, and is very much relished by the swine; and besides, when once well seeded it will last for a number of years. Following the orchard grass, the clover comes next in order. The orchard grass, on good land, will renew itself every two weeks for a fresh bite, and is admirably adapted for a separate feeding range for the young pigs, while the older ones are confined to the clover fields. By the time the clover is used up, the sweet cornstalks and sorghum will be sufficiently matured for cutting up and feeding in their order. When frost comes and destroys the succulence of these, the root filled should be ready to turn into and let the hogs help themselves. Corn or other grain may be fed conjointly with the succulence food we have spoken of, and it will be found that a little will go a great way in promoting a healthy and profitable growth. A field of peas to turn into will also furnish excellent feed at little cost. Barley is the best grain, ground entire, to make milk for mothers when suckling young. It is evident that under the pasturage system more hogs can be kept with the same amount of corn, and that one field will suffice for growing the entire amount of green feed, the size being proportionate to the demand. It would be a wise forethought in a man who proposed to rear hogs, to plant an orchard of early maturing varieties of sweet apples for his hogs to feed upon in the orchard, which should be made a permanent pig pasture. What a natural and sensible combination this would be—the apples producing growth for the pigs, and the pigs in their turn making more growth of apples—an equilibrium of profitable forces without any extra labor. My experience teaches me also that there is no more effectual method of enriching land and preparing it for good crops afterwards than by rearing swine. Hogs possess a value as auxiliaries on the farm to increase its richness and to afford a profitable home market, which is not valued as highly as it might be. As generally managed hogs do not increase the fertilizers of the farm as much as they would if they were allowed to become more active factors. When shut up in a pen, as usually cared for, a pig adds comparatively little to the manure pile.

### The Dairy.

#### The Centrefuge or the Centrifugal Cream Separator.

This machine has lately been introduced in several butter factories in eastern Pennsylvania, and has given such good satisfaction, that a brief notice of it might be desirable. It is a cylindrical vessel 18 inches deep by 30 inches in diameter, revolving at a speed of 2,000 revolutions per minute. The new milk is introduced into it by a pipe from the milk reservoir, in a constant flow, and passes out in two pipes, as cream and skimmed milk. The capacity of the machine is about 1,000 lbs. of milk per hour. The separation is very thorough, as about all the cream can be taken out. The consistency of the cream is under control, being able to take more or less milk with it. We can make the cream so pure that it will take little more than a quart of it to make a pound of butter. Of course the cream is perfectly sweet when extracted, as we take the milk from the cow as direct as we can get it, hardly waiting to cool it without it is to be hauled some distance to the factory. We have perfect control of the cream, churning it sweet or slightly acid, as is desirable. The grain of the butter is uninjured, and its quality superior, because the cream or milk has not been exposed to taints or injurious atmospheric influences, and its transformation into butter from the new drawn milk need occupy but a few hours. The skim-milk and buttermilk are both nice so far as sweetness is concerned, though the former is poor in fat. In comparing my butter yield during the last five months, while using this machine, with corresponding months in previous years I find I have gained at least 10 per cent. more butter, with much less trouble, in the manipulation of the milk. The principle governing the extraction of the cream by this machine, is that in rapidly revolving bodies, the heavier particles are carried with greater force to the outer rim or circumference, and as skim-milk is heavier than the cream, it is driven out from the cream, taking its place on the outer side of column of milk and cream and then caught by an outlet pipe and carried off, whilst the cream which occupies the main surface of the revolving column is caught by another outlet pipe and carried into the cream jars, thus making the operation a continuous separation as long as the milk supply lasts.

JOHN I. CARTER.

Chester Co., Pa.

### Training Heifers to Milk.

This is sometimes called "breaking," but the term is too harsh, and suggestive of ropes and clubs. While opposed to harsh treatment in training heifers to milk, we do not approve of feeding her on sugar, and singing to her, while we waste hours, days and patience in overcoming her dislike of the milking process. It is better to lay aside both sentimental and heroic notions, and take a business view of the subject. With but one or two heifers it is easy enough to pet them into perfect docility, but this plan will not apply in large herds, when heifers must be caught up after they drop their first calves and handled while in a semi-wild state. The point to be accomplished is to teach her that you neither mean harm nor foolishness, but simply business. To accomplish this you must be reasonable, firm and patient: admit that she has not much sense; is unnecessarily fractious and foolishly timid. Prepare yourself to meet these failings with those human qualities which are apt to overcome them. The best practical method to accomplish this that we have ever seen was the following: Put the heifer in stanchions between two old, quiet cows. A strong man sits down to milk her just as he would an old cow. She is not apt to make flank

movements because those old cows are there, and she has a wholesome respect for them. When she lifts her foot to kick, the strong left arm of the milker meets the blow half way, and it returns immediately as though nothing had happened. In fact, the milker should proceed just as if he had milked her a thousand times, and pay no more attention to her gyrations than is necessary to protect himself in the prosecution of his work. With this treatment, she soon learns there is nothing to be gained by opposition, and quietly submits. The best regulated dairies are those where the cows are treated with firmness, made to know their places, and keep in them. A cow is as easily spoiled with over-indulgence as with too harsh treatment.

**THE COLOR OF BUTTER.**—An exchange says: Whence comes the yellow color of butter? Every dairyman knows that the June butter from pastured cows has the best color and the best flavor. If we search for the cause of this, we cannot give any other reason for it than the freshness and maturity of the grass, which is then in the best stage of nutritiveness and luxuriance. The verdure is the deepest and the aroma is the most perfect. But whence comes the yellowness of the butter, although the grass may be greenest? When we look into the greenness, we find the clue. The green color of vegetation is due to chlorophyll, a composite substance which is found in the form of minute grains attached to the walls of the cells of plants. This word means literally the green of the leaf. Chlorophyll is dissolved out of the plants with the fat or wax when treated with ether. By treatment with chlorhydric acid it is decomposed into two coloring matters, a yellow and a blue. Now the acid of the gastric juice of the stomach of the cow is in part hydrochloric acid, and this is able to separate the yellow coloring matter from the chlorophyll of the herbage. This then is most probably the source of the color of the butter. We are led to this conclusion by the fact that the "green of the leaf" is lost in the ordinary process of curing hay and fodder, and that yellow butter cannot be made from this discolored food, nor from grass, even, which is immature or over-ripe.

### Poultry Yard.

#### Judicious Feeding.

The object in healthful feeding should be to give the fowls just as much food at a time as will be consumed and no more, and without causing any accumulation of fat beyond the small normal amount found in every animal. Over-feeding is a frequent source of trouble and is a great damage to fowls in many cases.

If the system is loaded down with fat, particularly the ovaries, the production of eggs is retarded and the number perceptibly diminished, if not the laying stopped altogether. The food which we give our fowls should be proportioned so that they shall not be obliged to eat more fatty matter than they need for the requisite amount of flesh, bone, egg-forming material and heat.

Too much meat, especially raw meat, is hurtful, but a little meat must always be supplied in winter to take the place of insect food. Whatever be the articles given, the method of feeding may be detrimental. Too little variety seems to dull the digestive powers. Food given in such a way that the fowls can gulp it rapidly leads to over-feeding and indigestion. They should be fed so as to compel some exercise and slow eating, as by burying the grain in heaps of sand or straw or chaff. Irregularity of the time of feeding is to be avoided. We deem it quite as important a matter where poultry is raised for marketing or family use only that the birds be furnished with the best food attainable from the shell upward for their thrift as we do the fancy breeding stock around us.—*Poultry Monthly.*



## Golden Rules.

If you desire to have your fowls healthy at all times, and be spared the annoyance of having to fuss and bother giving medicine and caring for the affected birds, you must lay down a few "golden rules" and adhere strictly to them. First, provide well ventilated roosting houses, free from draught or dampness. Second, never crowd too many fowls in one room. Third, never destroy the appetite by over-feeding, rather feed a little at a time and often, changing food as often as practicable, and giving a variety. Never throw food, or at least grain, down in a bunch, but scatter it far and near, in the weeds, grass and brush; never fear, not a single grain will be lost. Fourth, give plenty of pure, fresh water. Fifth, keep houses, roosts, nests, fountains and feed boxes thoroughly cleaned and disinfected. Sixth, keep your fowls tame, so if necessary you can pick them up at any time and in any place. Seventh, subscribe for a good poultry journal, and profit by its teachings; post yourself so you will know the symptoms of disease as soon as the fowl becomes affected; never permit a valuable fowl to die without making an effort to save its life. If you breed to sell, never send out a fowl diseased, nor one that is dirty, as it indicates carelessness, and a careless man will never make a successful breeder. Never sell inferior birds at any price; it will damage your reputation, if you have any, and if you have none you can never establish one by such a course. Honesty and fair dealing is the poultry breeder's stock in trade, and when that is gone he becomes a bankrupt, even if he is possessed of the finest stock in the world. Never buy high-priced fowls from any but breeders with a high reputation for honesty. If such men have first-class fowls they will not send inferior ones. Many amateurs in poultry breeding imagine that they must have exhibition birds to breed from, while experienced breeders know that such birds are, as a rule, not mated for breeding, but solely for exhibition purposes. Such fowls usually command the highest prices while good breeding stock can be purchased at much lower figures. I do not wish to be understood as advising the purchase of anything for breeding but the very best of birds, but the inexperienced would be better pleased with the results if they would, in ordering fowls from experienced breeders, instruct them to ship fowls mated for the particular purpose for which they were designed to be used, and not as I have received orders, in the spring, six months in advance of any shows, requesting me to send exhibition birds marking not less than ninety-nine points, and expecting to purchase them at the nominal sum of ten to fifteen dollars per trio. The parties sending such orders do not know what they want. Exhibition birds bought at that season of the year would have to pass through the moult before exhibition, and perhaps come out totally unfit to show, besides the chances of death by disease or accident, and perhaps be no better breeders than others that could be purchased for half the money.—*The Poultry-er's and Farmer's Guide.*

## Horticulture.

## The Orchard and Fruit Garden—August.

This is the "odd" year, but notwithstanding, the apple crop is not a large one in most sections of the country at least. The "odd year" belief as to the apple crop, has, like the planting of young trees with reference to the north and south sides as they stood in the nursery, its advocates; and still another belief prevails to some extent among farmers relating to the surety of an apple crop. "If," say the gentlemen of this faith, "the apple trees are in bloom at the 'full of the moon,' there will be few apples, but on the

other hand, if the trees bloom during the 'dark of the moon,' there will certainly be a large crop that year." These are in a practical sense rather odd doctrines, yet we cheerfully accord to every one, the right to his own belief and opinions. Among the summer apples the "Early Ripe," is about the only variety in our section that has approached what may be called a crop, and all in all, our experience is, that it is one of the most reliable bearers of uniformly smooth and fair fruit, and therefore one of the most valuable market varieties we have for this latitude at least. The quite early varieties of the peach have exhibited stronger tendency to rot before ripening this season than heretofore. The two English varieties, Beatrice and Louise, are valueless, in comparison with our own American kinds, because of their inferiority in size, while they are equally liable to rot. The Schumaker's Early being a yellow fleshed peach, it may be possible, that in it, and the "Peen To" (a seedling from the old Chinese, by Mr. Berckmans, of Georgia) one may have something of more value than are the white fleshed early kinds; this however is a question of time, as we know of none being in bearing yet in our State.

Among strawberries that we have seen and tested this year, the "Cumberland," all things considered, was most decidedly in advance of all others; indeed, as fine, if not the finest lot of strawberries it has ever been our pleasure to look at, was of this variety this season, size, quality and color, being more specially considered. In good soil with proper culture, we have yet to see its superior. "James Vick" as we saw it during the fruiting season is a strong grower, but that wonderful prolificacy was not as conspicuous as we had expected, neither does the size of berries meet present demands in that particular. The "Bidwell," is likely to have "a rest," either too much was expected, or the variety is not what was claimed for it; at all events there is a gentle murmuring of dissatisfaction concerning it among growers; still the Bidwell is no worse off than many other varieties of more recent origin. The production and "bringing out" of new kinds continues however, with unabated enthusiasm, and with the "determination to succeed," as one of the prominent characteristics of Americans in all undertakings, it is quite probable that some persistent "Yankee nurseryman" or fruit grower, will ere long give us something in the strawberry line, that will more fully satisfy public tastes in that regard. With raspberries, the Gregg as a Black cap still remains at the head of the class. Shaffer's Colossal, a stronger growing plant and a larger sized berry, is too soft to bear shipping. Tyler and Souhegan are earlier, smaller, less prolific, and plants much less vigorous, while among the red varieties the "Superb" as we saw it this season, is of but little value, owing to the fact, that unless fully ripe, the berries will not leave the stems without crumbling. This is the one irredeemable fault of this variety, otherwise it has great merit, especially as regards size, while the color is good and the growth of plants equally as good as Cuthbert. "Queen of the Market" seems to be giving as good returns, and therefore as much solid satisfaction to market growers as any other red variety at this time; and as the newer ones, Hansel, Marlboro, Lost Rubies, etc., it will require two or three more years to fully establish their perfections and imperfections.

## Kitchen Garden—August.

By those engaged in vegetable growing, this month is looked forward to with a sense of coming relief from the unequal conflict with weeds and the hurry of getting in second crops intimately associated with July. This catching up with the work is really

the feature of the month now upon us. Those who have been able to keep their growing crops cultivated and clean will find their advantage in bulk of produce over those whose crops were smothered with weeds during the sultry weather of the past month. I sometimes wonder whether or not anyone cultivating the usual variety of vegetables ever succeeded, in any one year, in getting satisfactory returns from the whole of them. Judging from a lengthy experience I very much doubt it. Let us be thankful that it is no unusual matter to have the major portion of them succeed. Insects will have their share. No matter how good the seed or how thickly we sow, there will often be unsightly gaps that cannot be seasonably remedied. Weeds may be prevented growing by means of an adequate "force," but seldom are. Add to this, varying soils and fluctuating seasons, and it is easy to account, on general principles for vexatious failures that shun no one however vigilant for even a single season.

Except that the spring was cold and things are rather late we have had a very good season. There has been plenty of rain for transplanting, but how little we were indebted to the weather bureau for telling us when to expect a shower! The service is said to be crippled at present; certain it is, I have found it of no value in my gardening projects. The phrase "local rains" so much used, may be true every time, and yet has no significance from our point of view. To be assured, notwithstanding a clear sky, that a few hours hence a heavy rain would set in, or the reverse, would be of the utmost value all over the country. Some day, perhaps, this grand result may be attained, but not with a "crippled service."

Things to be sown or planted now are few. String beans, summer squash, onions, according to some; towards the close of the month turnips and kale. If delayed last month cabbage and celery may now be planted. I make no apology for urging year after year to get out of the rut and sow turnips decently in rows instead of broadcast so that they can be hoed and thinned. Why this crop has not succeeded so well of late years in Britain as formerly is attributed by some to the comparative disuse of lime since the use of fertilizers became general.

Little disappointments: Waited 18 months for —'s splendid Hollyhocks to bloom and found them almost all single; double Portulacac ditto without exception. New grapevines of the same name from two reputable growers entirely different in leaf and no doubt in fruit. The Charles Downing strawberry of one of your correspondents and the Kentucky of another are identical, and in the belief that I had two kinds I planted too much of it.

Passing by the weeds, nothing has made a finer show in my garden this year than a lot of double Poppies from a 5 cent packet. On account of the rain this is also a good sweet-pea year. Antirrhinums are cheap and satisfactory and bloom all through the season. JOHN WATSON.

## Experiments with Peas.

Dr. Sturtevant, in the 53d Bulletin of the New York Agricultural Experiment Station, gives the experience there with peas as follows, which will be of interest to market gardeners as well as to amateurs:

Our first planting of peas which included sixty-eight, so-called, varieties, was made April 21st. Of these the first to produce pods of edible size was Laxton's Earliest of All, which was at edible maturity June 21st. Following close behind came Kentish Invicta, Hancock, Henderson's First of All, Ferry's Extra Early, Thorburn's First and Best, Ferry's First and Best, and Cleveland's First and Best, which showed pods fit for the table June 22d. One day later came Carter's first

Crop, Daniel O'Rourke, Early Alpha, Early Kent, and Sibley's First and Best, and the day following, or June 24th, the American Wonder, Blue Peter, Carter's Premium Gem, and the Philadelphia Extra Early were noted at edible size.

On May 12th we made a second planting of sixty-three so-called varieties, of which fifty-eight were duplicates of the first planted varieties.

We find that the order of the edible maturity in the varieties of the second planting does not entirely agree with that of the first planting. Thus, of the second planting, Carter's First crop, Daniel O'Rourke, Laxton's Earliest of All, Early Alpha, Cleveland's First and Best, Sibley's First and Best, Hancock, and Philadelphia Extra Early were all noted at edible maturity on June 30th. On July 1st we noted American Wonder, Blue Peter, Henderson's First of All, Ferry's Extra Early, and Ferry's First and Best. Kentish Invicta was noted July 3d.

These results are expressed in the following table:

	Planted Apr. 21st.	Planted May 12th.
	Edible.	Edible.
Laxton's Earliest of All...	June 21	June 30
Kentish Invicta.....	June 22	July 3
Henderson's First of All.....	do	July 1
Ferry's Extra Early.....	do	do
Thorburn's First and Best.....	do	do
Ferry's First and Best.....	do	July 1
Cleveland's First and Best.....	do	June 30
Hancock.....	do	do
Carter's First Crop.....	June 23	do
Daniel O'Rourke.....	do	do
Early Alpha.....	do	do
Extra Early Kent.....	do	July 7
Sibley's First and Best.....	do	June 30
American Wonder.....	June 24	July 1
Blue Peter.....	do	do
Carter's Premium Gem.....	do	July 3
Philadelphia Extra Early.....	do	June 30

We note that twenty-one days earlier planting gave from six to fourteen days earliness of crop in the varieties.

Averaging the periods between planting and edible maturity the order of earliness is as follows:

Laxton's Earliest of All gave crop in fifty-five days; Cleveland's First and Best, and Hancock, in fifty-five and one-half days; Henderson's First of All, Ferry's Extra Early, Ferry's First and Best, Carter's First Crop, Daniel O'Rourke, Early Alpha and Sibley's First and Best in fifty-six and one-half days; Kentish Invicta, American Wonder, and Blue Peter in fifty-seven days; Carter's Premium Gem in fifty-nine days, and Extra Early Kent in fifty-nine and one-half days.

To illustrate the value of selection in gathering peas for seed, we, last season, gathered a small quantity of the first pods that ripened of the Tom Thumb variety and a small quantity of the latest ones. We planted 100 seeds each from the earliest and latest pods on April 21st and the same on May 12th. We note the difference in the results of the two selections of seed to date, as follows: In vegetation of the seeds there was, in the two plantings an average difference of three and one-half days appeared, and in the date of edible maturity an average difference of five days, all in favor of the first planting. Ten plants from the earliest ripened seed have produced, to date, sixty-eight pods, of which thirty-eight are well filled, while an equal number of plants from the latest ripened seed, have procured to date, only forty-nine pods, of which but thirteen can be called well-filled.

The Tom Thumb variety was selected for this trial because the pods are formed during a longer period than in most other varieties. It is possible that in varieties of which the pods nearly all ripen at the same the difference in the results obtainable from the first and last ripened pods would be less marked. This experiment serves, however, to illustrate the importance of selection in gathering peas for seed, and shows that the inherent quality of the seed used may have as much bearing on the resulting crop as the condition of the soil, or the methods of cultivation employed.



# The American Farmer

"O FORTUNATUS NIMIUM SUA SI BONA NORINT  
"AGRICOLAS." Virg.

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\* Subscribers who have minerals, ores, marls,  
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ists, as to their composition, uses and value, by  
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postage prepaid*. Questions as to application of  
chemical science to the practical arts will also be  
answered.

At the office of THE AMERICAN FARMER  
are located the offices of the following organiza-  
tions, of each of which its proprietor, Wm. B.  
Sands, is secretary:

Maryland Horticultural Society.  
Maryland Dairyman's Association.  
Maryland State Grange, P. of H.  
Agricultural Society of Baltimore Co.  
Also, of the Maryland Poultry Club,  
Thos. W. Hooper, Secretary.

BALTIMORE, AUGUST 1, 1883.

## Breadstuff Crops and the Markets.

Harvest is generally over, except in the  
extreme Northwest, and though there have  
been disasters and drawbacks, and in some  
sections diminished crops, yet the general  
result is very favorable and nearly equal, it is  
believed, to the average through the whole  
country. The deficiencies in some portions  
of the West seems to be made good by the  
increased yields in the Middle and Southern  
States. Oats have done well, and corn is  
promising; while the hay crop is larger than  
for many years.

As to the probable demand, it seems set-  
tled that our surplus will be required for  
other countries, by whose misfortunes we are  
likely to profit. In England and France the  
wheat crop promises to fall below the yield  
of last season—in the former, according to  
the London Times, as much as 10 to 15 per  
cent. Continental advices are of the same pur-  
port, France's probable crops, according to  
official estimates, promising only 383 mil-  
lion bushels as against about 347 million in  
1882. The cholera in Egypt will very ma-  
terially interfere with the trade in India  
wheat.

## Baltimore County Fair.

The prospects are very encouraging for  
the coming Fair at Timonium, which takes  
place on September 4th to 7th. A general  
interest prevails amongst the farmers and  
breeders of the county, and their friendly  
rivalry in every department is expected.  
The various breeds of live stock will be  
largely represented, and it is not unlikely  
that some breeders from abroad, attracted by  
the celebrity which this vicinity has gained  
as a centre for improved cattle, and pleased  
with the methods of judging which have  
here been adopted, will have present some  
of their animals to compare merits and ap-  
pearances with our own. All such will be  
heartily welcomed and a fair field shown  
them.

THE LANSING WHEEL HAWK.—The  
attention of our readers is called to the  
advertisement of this implement by Messrs.  
J. O. Durborow & Co., who will forward to  
all applicants a circular detailing its advan-  
tages and method of operating.

## Fairs for 1883.

STATE, DISTRICT, ETC.

American Institute, New York, Oct. 3, Dec. 1	
Arkansas, Little Rock, Oct. 16, 20	
California, Sacramento, Sept. 10, 15	
Cincinnati Industrial, Sept. 5, Oct. 6	
Colorado, Denver, July 17, Sept. 30	
Connecticut, Meriden, Sept. 18, 21	
Delaware, Dover, Sept. 24, 29	
Illinois, Chicago, Sept. 24, 29	
Illinois Fat Stock, Chicago, Nov. 14, 23	
Indiana, Indianapolis, Sept. 24, 29	
Iowa, Des Moines, Aug. 31, Sept. 7	
Kansas, Lawrence, Sept. 18, 21	
Kansas, Topeka, Sept. 10, 15	
Kentucky, Lexington, Aug. 28, Sept. 1	
Louisville, Louisville, Aug. 1, Nov. 9	
Maine, Lewiston, Sept. 18, 21	
Maryland, Baltimore, Oct. 15, 20	
Mass. Horticultural, Boston, Sept. 18, 21	
Michigan, Detroit, Sept. 17, 21	
Minnesota, Owatonna, Sept. 3, 8	
Minn. Agric'l & Mech'l, Minneapolis, Aug. 27, Sept. 1.	
Mississippi, Aberdeen, Oct. 22, 27	
Mississippi Stock Breeders', Meridian, Oct. 29, Nov. 3.	
Montana, Helena, Sept. 10, 15	
Nebraska, Omaha, Sept. 3, 8	
New England, Manchester, N. H., Sept. 4, 7	
New Jersey, Waverley, Sept. 17, 21	
New York, Rochester, Sept. 10, 15	
North Carolina, Raleigh, Oct. 15, 20	
Ohio, Columbus, Sept. 3, 7	
Rhode Island, Cranston, Sept. 25, 28	
St. Louis, St. Louis, Oct. 1, 6	
South Carolina, Columbia, Nov. 13, 16	
Texas, Austin, Oct. 16, 20	
Tri-State, Williams Grove, Pa., Aug. 20, 26	
Vermont, Burlington, Sept. 10, 14	
Virginia, Richmond, Oct. 31, Nov. 2	
West Virginia, Wheeling, Sept. 10, 15	
W. Virginia Central, Clarksburg, Sept. 18, 20	
Wisconsin, Madison, Sept. 10, 14	

## MARYLAND COUNTY FAIRS.

Baltimore, Timonium, Sept. 4, 7	
Cecil, Elkton, Oct. 2, 5	
Frederick, Frederick, Oct. 9, 12	
Harford, Bel Air, Oct. 9, 12	
Montgomery, Rockville, Oct. 9, 12	
Kent, Worton, Sept. 11, 13	
Washington, Hagerstown, Oct. 16, 19	

## The Grange.

### National Lecturer's Communication.

SUBJECT FOR SUBORDINATE GRANGES FOR  
AUGUST.

Question—What is religion and politics in  
the Grange?

Suggestions—It has been said and repeated  
a thousand times that there is no religion  
nor politics in the Grange. An organization  
of this character, void of religion and poli-  
tics, would be a fraud and deserving of con-  
tempt.

If there were no religion in the Grange,  
why make the moral standing of an appli-  
cant a test for admission? Is not the first  
lesson taught at the threshold on entering a  
Grange a religious one?

And so it is with every lesson as we ad-  
vance in the order through all the degrees  
and ceremonies. If there is no religion in  
the Grange why open all its meetings with  
prayer, and close them with a benediction?  
Why the W. M.'s injunction at the close of  
every session as to our conduct during the  
intervals of its meeting? The most devoted  
and earnest men and women of the various  
religious denominations meet and mingle

together in the Grange in the enjoyment  
alike of its religious exercises; having laid  
aside all sectarianism, their religious senti-  
ments are elevated to higher esteem and use-  
fulness.

Educating on political economy, on the  
affairs and science of government, is "poli-  
tics" in its true sense. Men and women of  
all political parties meet in the Grange and  
enjoy the teachings of these principles;  
having divested themselves of selfish par-  
tisanism they readily assent that each shall  
enjoy his own political convictions.

When we dismiss selfishness, then we can  
properly distinguish between politics and  
partisanism. Our religion is true and elevat-  
ing. Our politics sound statesmanship.

## In Memoriam.

Whereas, It has pleased Almighty God, in  
His Divine Providence to take out of this  
world the soul of our deceased brother  
Phillip More Leakin; therefore, be it

Resolved, That in the death of Brother  
Leakin, Progress Grange No. 9, has lost one  
of its most earnest workers and one of its  
most influential members. Though not a  
farmer, but living his life long among far-  
mers he was one of the first to see the value  
of the Grange organization, and by connect-  
ing himself with the Order, to give his well  
known influence to promote the welfare of  
farmers and especially in the social aspect,  
to encourage more friendly intercourse  
among neighbors.

Resolved, That we here express our sincere  
appreciation of his loss to the community,  
not alone, but especially to the cause of  
education in our county, of which he, a life  
long teacher, was an able exponent and an  
earnest advocate.

Resolved, That we tender our heartfelt  
sympathy to his bereaved family in their  
affliction, and we revere his memory in  
commending his example as a tender father,  
a loving husband and a kind friend.

Resolved, That a copy of these resolutions  
be spread upon the journal of our Grange,  
that a copy be sent to the family of our de-  
parted brother, and that a copy be sent for  
publication to THE AMERICAN FARMER and  
to our county papers.

Ann Arundel County, Md.

## Home Department.

### Home Guardianship.

To the extent of caring for the persons and  
general welfare of our children up to the  
point when "young America" is commonly  
conceded to be full fledged and able to "go  
it alone," we are tolerably careful guardians.  
There is, however, at this period a disposition  
to relax our vigilance, chiefly, I believe,  
through our pride in our children being  
"smart enough to look out for themselves."

It thus happens then that just when they  
have greatest need for our oversight we are  
prone to withdraw it; when they are upon  
the threshold of man and womanhood, and  
the innocence and ignorance of childhood  
must of necessity yield to the wider knowl-  
edge and experience of maturity, we would  
recklessly trust them to the chances of asso-  
ciation and to natural imbibition. Society of  
our own wise choosing is no doubt an essen-  
tial aid in the general formation of character  
and manners, but for the young we have  
need to choose wisely and carefully, and  
even then we may not trust them to the cur-  
rent, expecting them in any mysterious way  
to escape the snares and dangers others are  
liable to. Some of us seem to think they  
will, if thrown out into tolerable good so-  
ciety, glean only what is good for them, and  
that kind Providence will surely withhold  
what is not good for them. We do well to  
commit them to the care of a kind Provi-  
dence—our utmost vigilance must ever be  
subservient to that; but when on the other

hand we commit them to the influence of so-  
cial intercourse, our vigilance is the means  
Providence mostly uses for their protection.

We are often compelled by circumstances  
to transfer this guardianship for a time at  
this critical period in the lives of our boys  
and girls, and as much as such a necessity is  
deplored on general principles, it is an open  
question whether professional discipline and  
oversight, such as our children get in the av-  
erage boarding schools, is not in many re-  
spects superior to the average home ruling,  
especially at this transition stage.

If parents were always wise and watchful,  
there could not be any question as to which  
was the most desirable guardianship. But,  
alas! parents are often foolish, and oftener  
short-sighted, and their fitness to guide and  
guard their own children very far from be-  
ing established even among the most partial  
of their own friends. How then do the young  
people fare? They are undergoing a trans-  
formation, the result of which is uncertain  
to the most interested observers, for a season  
they are subject to every variety of annoyance  
because of the betweenness of their condition.  
They are surfeited with childish things and  
older people give them the cold shoulder.  
It is just then when their sensibilities are  
most exposed to misapprehension that the  
wise guardian recognizes the need for skill-  
ful navigation. Their growing wants have  
to be carefully provided for and their child-  
ish confidence jealously restrained. To ex-  
pose them at the time to any foolish or con-  
taminating sympathies is to allow an entering  
wedge of evils which we may never be able  
to eradicate.

However, if the bond of sympathy and  
confidence have not already been established,  
we need never expect it until man and  
womanhood bring them up to a full apprecia-  
tion of its value and of the safest and surest  
place to find it. And even though this bond  
may be what we desire, there is yet dan-  
ger in allowing them to mingle too freely  
among older persons. Freedom of speech  
is so strong an element of pleasure among  
us that we are not always ready to shape it  
according to the undisciplined ears of youth,  
and therefore the innocent young persons we  
take with us in the vain hope that it may in  
some way be improving as well as pleasant  
to them, oftentimes gather from the unguard-  
ed words of their elders such insight into  
evil, or such wrong leading of their thoughts  
as are injurious to them, and yet would fail  
to catch the attention of better disciplined  
or more mature minds.

Whatever the nature of our guardianship  
may be, there is no excuse for our neglecting  
the safeguards about our own hearth. Here  
at least, we preserve pure atmosphere, which  
being their daily sustenance, may go far  
toward forming their appetites and giving  
them healthy digestion for whatever is of-  
fered elsewhere.

Those of us who seek to avoid the objec-  
tionable influences of schools by educating  
our children at home are doubly responsi-  
ble, because in any school they have the  
chance of counteracting influences to over-  
come what is wrong, whereas at home they  
are still dependent upon the home abrasion  
alone, and the individuality of one teacher—  
and alas! that one may be a very fair teach-  
er, and yet in other respects exert a wretched  
influence over those who are required to give  
respect to their teacher. No considerations  
of convenience, or economy, or personal lik-  
ing should lead us ever to place in intimate  
association with, or in any manner give the  
control of our children to, any one who has  
not our utmost confidence and respect.

As a matter of course, any one so endorsed  
by us would naturally be accepted as good  
authority by our children, and therefore we  
cannot lightly transfer our guardianship in  
this respect. Of course, with the greatest  
care, we may ourselves be deceived, and we  
should, therefore, heed the slightest indica-



tions of our having been mistaken. Laxity of principles and looseness of conduct may escape our notice and yet be undermining our life-work by weakening the sense of right and wrong in our children. A careful observer said to me, "I have been inexpressibly shocked by the conduct and utterances of a person in charge of the children of respectable Christian parents, and who is, apparently, a favorite with them, and yet these same parents deplore the fact that I send my own children to boarding schools where the religious and elevating influences were universally acknowledged."

Next in importance to the care we are bound to exercise in regard to teachers for our young people, is the kind of people we permit into the companionship of our home circle. No doubt we are constrained often under mental protest to meet and treat with some consideration people whom we consider unworthy of the least of our regard. A common humanity and likewise Christian charity appeals to our better feelings to make great allowance for weakness or infirmity, both moral and physical, but neither of these should for a moment cause us to forget the guardianship we owe to those whom God has given us or friends intrusted to our care, for whosoever is gathered within the precincts of home comes under our natural guardianship for the time.

Whatever our Christian duty requires of us for the elevation of the fallen, or reclamation of the depraved, it is nowhere taught that we should begin by polluting those of our own households; and the father or brother who allows a disreputable man or woman to enter their home upon any terms of equality with themselves, soils his own manhood, and the mother who looks complacently upon any such intrusion, outrages every idea of true motherhood. It may require considerable violation of the code of hospitality to say to any one who is received among one's friends, or who belongs to a good family, "You have degraded yourself and I do not consider you fit to be received in my family," but only in such manner can those who wilfully so degrade themselves be made to realize their offence against society, and thus, too, we emphasize the lessons we seek to inculcate in our own youths. When we take depravity in any shape by the hand in friendliness, we set a premium upon such depravity. We should seek earnestly to lead them to repentance, but until such repentance is manifest, even God does not pardon.

Not only are we responsible to those of our own household for breach of trust if we relax our guardianship in this respect, but also the entire circle of our friends. If they meet at the house they visit and are, through common politeness, forced to an introduction to an objectionable person, they are compelled to acknowledge the acquaintanceship elsewhere, or else give an offensive cut. If in any general gathering they claim the prerogative of your or my acquaintance and recognition, what are our friends to do? We may seek to hide our own dereliction in the circumstance of his or her "family," but this is the weakest of all defences, as no doubt the "family" would deny the relationship if they could. Man or woman who make themselves unworthy of their "family" should have no consideration accorded them on that ground; in fact they are thus doubly degraded, there being much more room for excuse where they have never had such restraining influences.

Although we may feel our own young people to be secured against the evil influences of doubtful or bad people by our present oversight, we yet owe something to our neighbors; their young people, who as friends and acquaintances of our own and who associate freely with ours, have confidence in our discrimination and assume that they are meeting respectable people in a respectable house. Should their guardians have been

deceived in this respect they may not discover the danger until too late to avert serious consequences. There may also be an unwise and oppressive surveillance by parents which tends to weaken their power. This is, however, best guarded against by keeping the home circle and, as far as our influence goes, the social circle free from contaminating people.

Relationship, wealth, or "family" should never influence us against our better judgment in regard to admission of any one within our circle of personal or home friends; and farther still, we should, as far as we can, prevent those under our care from visiting anywhere where such precautions are not observed. I should hold it a sin against my own conscience to ask young people to my own house knowing they would there encounter any one who might in any way endanger the moral status of the most unsophisticated youth of either sex, even though the danger lay in a member of my own family, so sacred do I hold the office of guardianship belonging by right to the head of the household.

CERES.

### A Picture and Thought at High Rock, Pen-Mar.

There are wayside resting places in life, so pleasant and of such brief duration that, like the arbor on the hill side in which Christian slept, we would fain linger in them longer, though duty and care call us away.

In one of these I have been for a few days, breathing the pure air and fragrance of a mountain top, feasted with a landscape extended, calm and beautiful. After some days of rain, the soft, warm sunshine, is gratefully felt once more, having all the mildness, and the landscape the haze, though not the tints of Indian summer.

Whilst the view from the Pavilion adjoining the dining hall at Pen-Mar, is exceedingly fine, that from High Rock, two miles up the mountain, far surpasses it. The crag, a pulpit of rock stretching backward, is one hundred and fifty feet from its base, crowned by large pavilions and observatory. During the late war this point was used as a signal station by both armies, commanding, at an elevation of two thousand feet above the sea, a view of hundreds of square miles in Virginia, Maryland and Pennsylvania.

Mountains appear as plains, though thickly wooded, and the eagle, hawk and vulture, sailing in the air below, look like flies.

A dozen towns and villages are seen, with Antietam creek, the Cemetery in Sharpsburg, and several battlefields in the distance. Hundreds of fair farms and fields are spread out as on a map, divided off as clearly as the squares on a checker board, some of light green, from growing grass or corn, others golden brown, from ripened grain, with here and there a darker patch of uncleared woodland. The air, which is the best of tonics, is full of fragrant odors from hay fields in the fair valleys of Shenandoah and Cumberland, and wild flowers in the woods. Not until we breathe the atmosphere of the crowded city at night, do we know the foulness of the one and the purity of the other. When there is rain the whole Valley is wiped out, as if a curtain of mist had been drawn over it, while the clouds, that hang waving and tremulous, rest on the peaks. Beautiful it is to see them slowly rolling away, lifted after the storm. Patches of blue, rifts in the gray and white, look like miniature lakes of blue surrounded by peaks of dazzling snow. The long line of the Blue Ridge, in the background, is always an exquisite frame to the picture. Light and shadow in the Valley, are constantly shifting; one field is bathed in warm sunshine, the next reflects the shadow of a cloud, and another is dark woodland.

How deep and solemn the stillness, broken only by the songs of birds in bushes hung,

after a day's rain, with glittering brilliants and diamond sprays. At intervals the cawing of the crow is heard through the Valley, and in the evening the croaking of frogs and the plaintive cry of the whippoorwill. The woods abound with delicate wild flowers and airy blossoms of white, blue and gold. The white hamlets in the Valley are so small, in the distance, that they look no larger than one's finger, yet, because of the immortality of the dwellers within, what far-reaching mighty influences will be thrown out from each? They seem so calm and peaceful, yet in each, as in every state of man, there is unrest.

Palm trees in the desert, and wells of clear water may be pleasant, but the pillar of cloud will soon cause every tent to be taken down, every pilgrim to move on. Wayside rests, perfect in all their surroundings, are not for long.

MRS. J. B. MOORE BRISTOL.

### Tried Recipes.

From an experienced housekeeper for many years at the head of a Maryland hotel I have these recipes by request. I not only found them excellent on her table, but equally so on my own. The chow chow is made in a very simple manner.

**DUMPLINGS.**—Take two pounds of brisket, piece off the breastplate or chicken. Put on to boil early, with half gallon or a gallon of water enough to make jelly for dumplings. Put in a little pepper and salt, onion and parsley. Take a scant tablespoonful of lard, with salt, a pint and more of flour. Roll out and cut it thinly in any shape. Have the pot boiling madly, and drop them in while very hot. They only need fifteen minutes boiling. Put your potatoes in before having the pot well boiled, and nearly done.

**CHOW CHOW.**—One peck of green tomatoes; one dozen of onions, one pepper, two tablespoonsful of celery seed, one quarter of pound of white mustard seed, and two cents' worth of cloves. Chop and salt over night. Put a pint of salt in the tomatoes and onions over night. In the morning draw off the water through a colander. Put all the ingredients in with the tomatoes and onions. Pour on good cold vinegar to cover them, with a teaspoonful of good sugar.

J. B. M. B.

### Home Topics.

Dust will accumulate in closets, will sift in through and under the doors, after one has done all she knows how to prevent it. If a woman can afford to have a regular chest of drawers of the exact length of her dress skirts, she should be counted as one of the happy; if not, she can shield her black silk and velvet dresses in this way: Take two breadths of wide cambric, sew them together, hem all around both ends, and run in strings to draw them together, or pieces of elastic cord. In this slip the dress skirt. Have two loops on the band of the skirt, and let them come through the top of the bag to hang it by. The object in having both ends open is so that the dress may be slipped out at either end, and also may be arranged so that it will not wrinkle. There should be a loop on the bag, also, by which it may be left hanging in the closet after the skirt is taken out.

Speak kindly in the morning; it lightens the cares of the day, and makes the household and its affairs move along more smoothly. Speak kindly at night, for it may be that before the dawn, some loved one may finish his or her space of life for this world, and it will be too late to ask for forgiveness.

If you find that your stoves that are put aside for the summer are rusting, rub them over with a little kerosene. Apply it with a flannel cloth. This will prevent rust.

**Fever, Fever and Ague, Dyspepsia, Headache and all bilious diseases cured by J. M. Laroque's Anti-Bilious Bitters.** 25 cents a paper; \$1 a bottle. W. E. Thornton, Baltimore and Harrison streets.

**Malaria from the undrained Pontine marshes, near Rome, is a terror to travellers. Ayer's Ague Cure is an effectual protection from the disease, and a cure for those who have become its victims. It works just as effectually in all malarial districts on this side of the sea. Try it.**

**Ayer's Hair Vigor is safe, agreeable and beneficial. It is the most elegant, and its effects are very lasting, making it the most economical of toilet preparations. By its use ladies can keep their hair abundant and natural in color, lustre, and texture.**

**Ayer's Ague Cure is intended to act as an antidote to malarial fever, and all diseases generated by marsh, swamp or slough. Science has brought this remedy nigh to perfection. No quinine, no arsenic, nor injurious drug enters into its composition. Chemistry and the healing art have combined to make it the curative triumph of the age we live in.**

### Baltimore Markets—August 1.

**Live Stock.**—**Beef Cattle.**—The market opened slightly more active, but before the close trade became very dull and the opening advances scarcely maintained. Prices of Beef Cattle were as follows: Best on sale to-day, 5½¢ @ 6¢; That generally rated first quality, 4½¢ @ 5½¢; Medium or good fair quality, 3½¢ @ 4½¢; Ordinary thin Steers, Ozen and Cows, 3¢ @ 4¢; Extreme range of prices, 2¢ @ 5¢; Most sales were from 4½¢ @ 5½¢. **Sheep.**—Good stock is in demand, both of Sheep and Lambs, but scarce, while common are hard to sell. Market, generally, slow. We quote butcher Sheep at 3½¢ @ 4½¢, while extra quality would bring a higher figure. Lambs, 4¢ @ 5¢; Sheep at 3½¢ @ 4¢, per lb. **Pigs.**—Prices show an advance fully ½¢ over last week's figures and are firm at the quotations. We quote: Stillborn and common Hogs at 3½¢ @ 4¢, and the better grades at 4½¢ @ 5½¢, with extra at a shade higher figure. Most sales at and near 5½¢.

**Tobacco.**—**Leaf.**—The market for Maryland has been very strong, and all desirable grades are eagerly taken at advanced prices. We quote: Maryland inferior and frosted, \$1.50 @ 2.50; do. sound common, \$2.00 @ 4.00; do. good common, \$4.00 @ 5.00; do. medium, \$6.00 @ 8.00; do. good fine red, \$8.00 @ 10.00; do. 10¢ @ 12¢; do. upper country, \$4 @ 5; do. ground leaves, \$2.00 @ 7.00. Of Ohio, sales have been confined mainly to spangled grades which are in good demand at full prices. We quote: Inferior to good common, \$3 @ 5; Greenish and brown, \$5 @ 6 @ 7.50; Medium to fine red, \$7.50 @ 10.00; common to medium spangled, 6¢ @ 9¢; Fine spangled and yellow, 10¢ @ 15¢; Air-cured, common, \$4 @ 5; Air-cured, medium to fine, \$7 @ 15.

**Flour.**—The market is quiet and steady, especially for good freshly ground stock, which is comparatively scarce. Old and inferior grades are dull and nominal. We quote as follows: Howard Street and Western Super, \$3.00 @ 3.75; do. Extra, \$4.00 @ 4.75; do. family, \$5.25 @ 6.00; City Mills Super, \$3.00 @ 3.75; do. Extra, \$4.00 @ 4.75; do. (Rio Brand) Extra, \$6.00 @ 6.25; Baltimore Winter Wheat Patent, \$7.50; do. High Grade Family, \$6.75; do. Second Grade Extra, \$4.50; do. Third do. do., \$4.25; Fine, \$2.75 @ 3.00; Rye Flour, \$3.75 @ 4.00; Corn Meal, per 100 lbs., \$1.30 @ 1.35.

**Wheat.**—There is only a moderate demand for choice Southern Wheat and the market is dull and lower. The sales were at 90¢ @ 1.05 for damaged and inferior, 1.00 @ 1.10 for tough, cartage and ampty, 1.12 @ 1.14 for good to choice Fultz and 1.15 @ 1.16 for do. longberry. The market for Western Wheat is quiet and lower, but closes fairly steady at or near the lowest prices. The closing quotations were as follows: Spot, No. 2, 1.15¢ @ 1.18¢; July, 1.13¢ @ 1.18¢; August, 1.13¢ @ 1.18¢, and September, 1.15¢ @ 1.18¢.

**Corn.**—There is only a moderate offering of Southern Corn, but the inquiry is slow, and the market is dull and easy. Fly-cut white sold at 60¢ @ 61¢, prime do. at 62¢, and good to prime yellow at 63¢ @ 65¢. Western Corn is quiet and fairly steady. The market closes easy. The closing prices were: For August, 59¢ @ 60¢, and 60¢ @ 61¢, for September.

**Oats.**—There is an ample offering but no pressure to sell, and the market is dull and fairly steady with moderate inquiry. We quote Maryland and Pennsylvania at 34¢ @ 43¢; mixed, Western, 40¢ @ 41¢; bright, do., 41¢ @ 43¢.

**Rye.**—The demand is uncertain and the market is quiet and somewhat irregular. Sales 170 bushels good old crop at 61¢, and 200 new Maryland at 56¢ @ 59¢.

**Cotton.**—There is no pressure to sell, but the demand is slow and market is quiet and steady. We quote as follows: Middling at 9½¢; low middling at 9¢, and good ordinary at 8¢.

**Provisions.**—Speculation is quiet. The local market rules steady under a fairly active order trade. We quote: Bulk shoulders, 8¢; Clear rib sides, 8½¢; Bacon shoulders, 8½¢; Clear rib sides, 9½¢; Hams, sugar cured, 14½¢ @ 15¢. Refined Lard, in tierces, 10½¢; Mess Pork, new, heavy, \$10.50 per bbl.

**Butter.**—For really choice stock there is active demand and the market is steady. All other grades are dull and nominal. We quote: Choice New York State at 21¢ @ 23¢; fresh Western cream at 14¢ @ 16¢; do., good to prime, at 12¢ @ 13¢, and near-by receipts at 10¢ @ 14¢, per lb.

**Eggs.**—There is only a moderate supply and the market is firm, under an active demand for best stock at 17¢ @ 18¢, per dozen.



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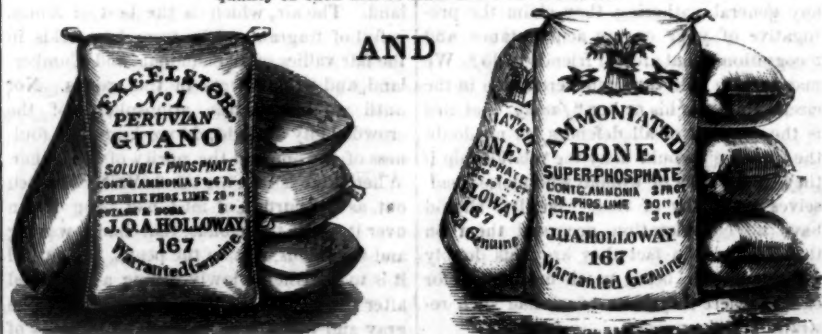
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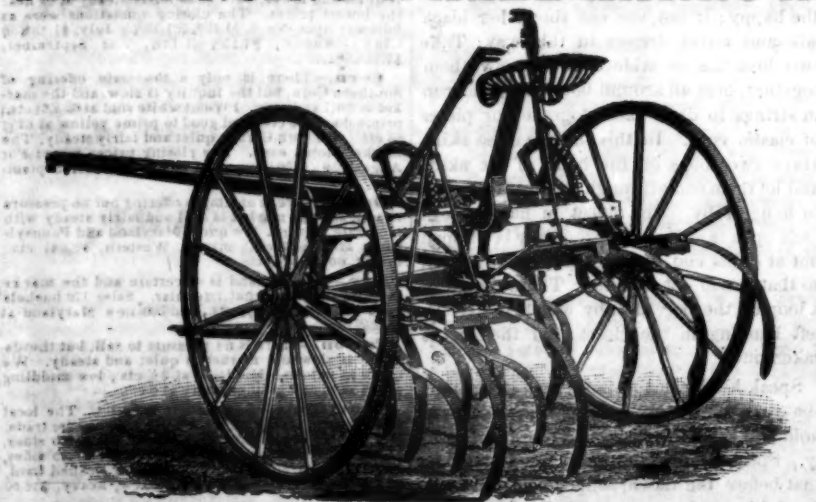
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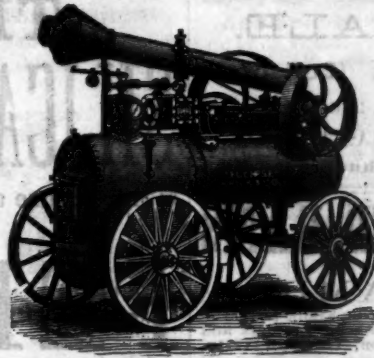
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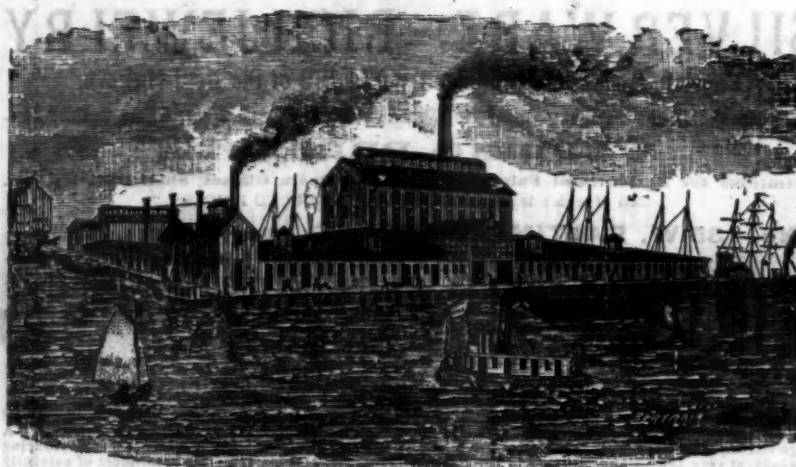
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